REMARKS/ARGUMENTS

Claims 1-39 are pending in the present application.

This Amendment is in response to the Office Action mailed February 26, 2004. In the Office Action, the Examiner objected to the specifications and the drawings, rejected claims 4-7, 9-10, 13-15, 19-22, 24-26, 28-30, 34-35, 37-39 under 35 U.S.C. §112; 1-39 under 35 U.S.C. §103(a). Applicant amended claims 4, 9, 10, 14, 15, 19, 24, 28-30, 34, and 37-39. Reconsideration in light of the amendments and remarks made herein is respectfully requested.

Drawings

The Examiner objects to the drawings because the items 645 and 685 in Figure 6 are not mentioned in the description. In response, Applicant has amended the Specification, paragraphs [0055] and [0056].

Accordingly, Applicant respectfully requests the objection to the drawings be withdrawn.

Specification

1. In the Office Action, the Examiner objects to the Specification because there is lack of cross-references to related applications. In response, Applicant asserts that there are no related applications that need be cross-referenced in this application.

2. The Examiner states that the trademark JAVA is used and it should be capitalized. In response, Applicant has amended the Specification to capitalized all appearances of the trademark JAVA.

Accordingly, Applicant respectfully requests the objection to the Specification be withdrawn.

Rejection Under 35 U.S.C. § 112

1. Trademark in claims

The Examiner states that claims 13-15, 28-30, and 37-39 contain the trademark/tradename JAVA/JVMDI and therefore do not comply with requirements of 35 U.S.C. §112, second paragraph, citing Ex parte Simpson, 218 USPQ 1020 (Bd. App. 1982). Applicant respectfully disagrees.

The presence of a trademark or tradename in a claim is not, per se, improper under 35 U.S.C. §112, second paragraph. MPEP 2173.05(a). "..the use of trademarks having definite meanings is permissible in patent applications" MPEP 608.01(v).

In Ex parte Simpson and Roberts, the appellant use the trademark Hypalon in the specification and claims. The court sustained the Examiner's rejection on the basis of indefiniteness. However, the court's reasoning was not based on the mere fact that Hypalon is a trademark, but based on the uncertain claim scope. The Court stated,

"The claim scope is uncertain as regards the material which forms the 'Hypalon' membrane. On the one hand, the claim language may be very narrowly construed to a particular chlorosulphonated ethylene having a specific group of additives employed by the owner of the 'Hypalon' trademark to produce the desired properties, or on the other hand the claim language might be asserted by appellants,.., to broadly encompass every synthetic resin..."(Ex parte Simpson at 1024, 1022).

Here, JAVA is used as an adjective, not as a noun, to definitely characterize a particular implementation of a function (JAVA method), a field (JAVA filed), a virtual machine (JAVA virtual machine), and a debug interface (JAVA virtual machine debug interface). There is no confusion or indefinite regarding the JAVA method, JAVA field, JAVA virtual machine, and the JVM debug interface. Furthermore, JAVA is used in the technical field to indicate a high-level programming language. The use of the JAVA programming language has been so widespread the there is no indefiniteness or confusion.

Accordingly, Applicant respectfully requests the rejection to claims 13-15, 28-30, and 37-39 under 35 U.S.C. §112, second paragraph be withdrawn.

2. Lack of antecedent basis

The Examiner states that claims 4-7, 15, 19-22, 30, 34-35, 9-10, 24 and 26 lack antecedent basis. In response, Applicant has amended claims 4, 9, 10, 19, 24 and 34 to correct claim dependencies.

Accordingly, Applicant respectfully request the rejection under 35 U.S.C. §1.112 due to lack of antecedent basis be withdrawn.

Rejection Under 35 U.S.C. § 103

1. In the Office Action, the Examiner rejected claims 1, 4-8, 13-16, 19-23, 28-31, 34, and 37-39 under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,078744 issued to Wolczko et al. ("Wolczko") in view of U.S. Pre Grant Publication 2001/0047510 issued to Angel et al. ("Angel"); and claims 2-3, 9-12, 17-18, 24-27, 32-34, 35-36 under 35 U.S.C. §103(a) as being unpatentable over Wolczko in view of Angel and further in view of "Poor Man's Watchpoints", by Max Copperman and Jeff Thomas (1995) ("Copperman"). Applicant respectfully traverses the rejection and contends that the Examiner has not met the burden of establishing a prima facie case of obviousness.

Wolczko discloses a technique to improve compile performance during subsequent compilations of a source program. An optimized compilation process recompiles portions of the source program and generates optimized machine code versions of the heavily used portions (Wolczko, col. 6, lines 51-55).

Angel discloses a byte code instrumentation. A technique to instrument a byte code program includes examining the byte code, selecting portions of the byte code for instrumentation, and instrumenting the portions to provide instrumented byte code (Angel, paragraph [0014]). Memory access instructions are instrumented to detect illegal memory operations at runtime (Angel, paragraph [0091]. In addition, exiting and entering blocks of code where variables become defined and undefined are monitored (Angel, paragraph [0091]).

Copperman discloses a technique to implement watch points using code patching. When the user sets a watch point, the debugger sets the register $fp to point to a register save area in the debuggee's static data space. When no watch points are set, the first instruction in the patch branches around the rest of the patch if $fp contains (Copperman, page 38, third paragraph under section "The Debuggee").

Wolczko, Angel and Copperman, taken alone or in any combination, does not disclose, suggest, or render obvious (1) re-compiling when a field watch for a field is activated, (2) generating an instrumentation code corresponding to the field watch; and (3) inserting the instrumentation code to the native code. There is no motivation to combine Wolczko, Angel and Copperman because none of them addresses the problem of recompilation according to a field watch. There is no teaching or suggestion that a field byte code accessing or modifying the field

is present. Wolczko, read as a whole, does not suggest the desirability of generating an instrumentation code corresponding to the field watch.

The Examiner states that Wolczko discloses recompiling byte code into native code (Office Action, page 7). However, Wolczko does not disclose recompiling a function when a field watch for a field is activated. Wolczko merely discloses recompiling a portion of a program that is heavily used (Wolczko, col. 6, lines 54-55). The condition for recompilation is the frequency of usage, not the activation of a field watch.

The Examiner further states that Angel discloses, activating field watch by monitoring memory access instructions and variables of a program (Office Action, page 7). Applicant respectfully disagrees. Monitoring memory access instructions and/or variables is not the same as activating a field watch of a field. A field watch sequence may include instruction sequence to spill the mimic stack operands, which are live at the field access point, to their canonical spill locations (See, for example, Specification, page 14, paragraph [0047]).

The Examiner further states that Copperman discloses guarding execution of the instrumentation code if the field watch is not activated by disclosing setting or not setting the watchpoints, or entering or enabling a watchpoint command (Office Action, page 12). Applicant respectfully disagrees. A watchpoint or watchpoint command is not the same as a field watch as discussed above.

Therefore, Applicant believes that independent claims 1, 16, 31 and their respective dependent claims are distinguishable over the cited prior art references. Accordingly, Applicant respectfully requests the rejections under 35 U.S.C. §112 and 35 U.S.C. §103(a) be withdrawn.

Conclusion

Applicant respectfully requests that a timely Notice of Allowance be issued in this case.

Respectfully submitted,

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Dated: April 22, 2004 By _____

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